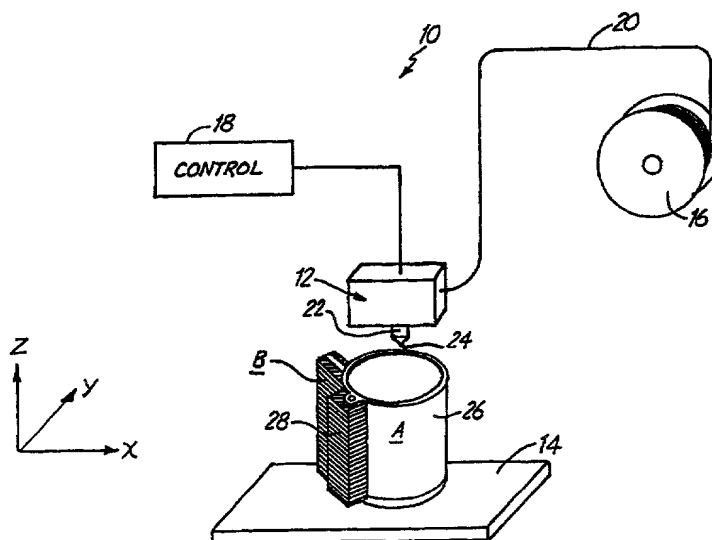




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<b>(21) International Application Number:</b> PCT/US00/10592 <b>(22) International Filing Date:</b> 19 April 2000 (19.04.00)  <b>(30) Priority Data:</b> 60/130,165      20 April 1999 (20.04.99)      US  <b>(71) Applicant (for all designated States except US):</b> STRATASYS, INC. [US/US]; 14950 Martin Drive, Eden Prairie, MN 55344-2020 (US).  <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> PRIEDEMAN, William, R., Jr. [US/US]; 405 South Willow Drive, Long Lake, MN 55356 (US). BROSCHE, Andrea, L. [US/US]; 6470 Undestad Street, Eden Prairie, MN 55346 (US).  <b>(74) Agent:</b> CHAPMAN, Gena, M.; Kinney & Lange, P.A., Kinney & Lange Building, 312 South Third Street, Minneapolis, MN 55415-1002 (US).		<b>(81) Designated States:</b> CN, DE, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).  <b>Published</b> <i>With international search report.</i>

**(54) Title:** SOLUBLE MATERIAL AND PROCESS FOR THREE-DIMENSIONAL MODELING
**(57) Abstract**

A process for three-dimensional modeling in which an alkali-soluble thermoplastic material is used in an additive deposition process to form a soluble support structure (28) for a three-dimensional object (26) under construction. The alkali-soluble thermoplastic material includes a base polymer of carboxylic acid and a plasticizer. Following formation, the object (26) is placed in an alkaline bath to dissolve the support structure (28). The alkali-soluble material can be used to form an alkali-soluble three-dimensional object (26).